AMENDMENTS TO THE CLAIMS:

The following listing of the claims replaces all previous versions, and listings, of the claims. Please cancel claims 19, 27, 28, 31, 32, 33, and 34 without prejudice, add the following new independent claims 38 and amend claims 20, 21, 29, 35, and 36 as follows:

Claims 1 to 19. (canceled)

20. (currently amended) The method according to claim [[19]] 38, wherein said design data is CAD data or is determined by a sensor.

21. (currently amended) The method according to claim [[19]] 38, wherein said at least one area on said surface of said three-dimensional object to be inspected is electronically stored or visualized as a calculated picture.

22. (previously presented) The method according to claim 21, wherein said at least one area on said surface of said three-dimensional object to be inspected in said respective manner automatically based on said design data is capable of being processed manually.

23. (previously presented) The method according to claim 22, further comprising displaying said calculated picture of said at least one area on said surface of said three-dimensional object to be inspected in said

pictures that were actually taken during said inspection.

24. (previously presented) The method according to claim 23, further comprising automatically comparing features in said at least one area on said surface of said three-dimensional object to be inspected in said respective manner based on said design data with features recognizable in said pictures that were actually taken during said inspection, and then carrying out a position correction, if necessary, based on results of the comparing.

25. (previously presented) The method according to claim 24, further comprising three-dimensionally calibrating said optical picture-taking device.

26. (previously presented) The method according to claim 25, further comprising a fine-positioning of said three-dimensional object in said pictures that were actually taken.

Claims 27 and 28. (canceled)

29. (currently amended) The method according to claim [[28]] 38, further comprising determining picture-taking positions of the optical picture-taking device so as to cover said three-dimensional object or said at least one area on said surface of said three-dimensional object

to be inspected with said pictures that were actually taken during said inspection.

30. (previously presented) The method according to claim 29, wherein points in time for taking said pictures are determined considering displacement information of said displacement device and said picture-taking positions of said optical picture-taking device.

Claims 31 to 34. (canceled)

35. (currently amended) The method according to claim [[34]] 38, further comprising performing a check, based on said at least one area on said surface of said three-dimensional object to be inspected and said inspection path, to determine whether said three-dimensional object defined by said design data or an entire area of said surface to be inspected on said three-dimensional object defined by said design data, has been completely covered.

36. (currently amended) The method according to claim [[27]] 38, further comprising visualizing said inspection path or said at least one area defined on said surface of said three-dimensional object to be inspected on display means.

37. (previously presented) The method according to claim 36, wherein said display means is a display device.

38. (new) A method of planning an inspection path for at least one optical picture-taking device for inspecting a three-dimensional object, wherein the at least one picture-taking device and the object are movable relative to each other using at least one displacement device, said method comprising:

a) assigning at least one illumination device to said at least one optical picture-taking device;

b) automatically determining at least one area on said surface of said three-dimensional object to be inspected, at least one other area on said surface of said three-dimensional object that is not to be inspected, and a respective manner in which said at least one area is to be inspected with an arithmetic logic unit based on design data in electronic form related to said three-dimensional object;

c) planning an inspection path for said at least one optical picture-taking device for inspection of said three-dimensional object based on said at least one area to be inspected on said surface of said three-dimensional object determined in step b, based on said design data, and based on optical imaging characteristics of said at least one optical picture-taking device, stored in an electronic form;

d) automatically determining said inspection path for said at least one optical picture-taking device by specifying a predetermined geometric relationship between said at least one optical picture-taking device, said at least one illumination device, and said surface on said three-dimensional object to be inspected by using said arithmetic logic unit so that said inspection path or an inspection time is as short as possible;

e) determining a motion sequence for relative motion between said three-dimensional object and said at least one optical picture-taking device or said illumination device for the at least one optical picture-taking device from said inspection path; and

f) assigning said at least one area on said surface of said three-dimensional object to be inspected to pictures that were actually taken with said at least one optical picture-taking device during an inspection with said optical picture-taking device.